

AMENDMENTS TO THE CLAIMS

Claim 1 (currently amended) An optical recording apparatus comprising:

a rotating section that is provided for rotating an optical disk which is formed thereon with a guide groove to define a spiral track having a plurality of rounds;

an optical pickup that has a light source for generating an optical beam and a diffractive grating for diffracting the optical beam to form a main beam and a pair of sub beams opposite with each other relative to the main beam, ~~the optical pickup being operable for irradiating the main beam to the spiral track with accompanying the pair of the sub beams along opposite sides of the spiral track;~~

a servo section that operates the optical pickup to enable the main beam to trace the spiral track with the accompanying pair of the sub beams along opposite sides of the spiral track based on a tracking error signal derived from return lights of the sub beams reflected back from the optical disk;

a recording section that modulates the main beam for recording of information onto the spiral track while the optical ~~disk~~ disk is rotated and the power of main beam is increased to widely form pits to the extent that the pits recorded on previous round overlaps partially with the sub beam positioned radially inner side so as to cause an undesirable track jumping; and

a control section that controls recording of information each cycle the optical disk is rotated such that the recording of information is enabled to ~~fill~~ record one round of the spiral track and ~~disabled~~ enabled to blank another round of the spiral track so as to alternate the ~~filled~~ recorded rounds and the blanked rounds.

Claim 2 (original) The optical recording apparatus according to claim 1, wherein the control section operates when the recording of information to a current round of the spiral track is finished for controlling the servo section to jump the main beam from an end of the current round to an end of a next round of the spiral track so as to blank the next round.

Claim 3 (currently amended) The optical recording apparatus according to claim 1, wherein the control section operates when the recording of information to a current round of the spiral track is finished for controlling the recording section to disable the main beam to record for one cycle of the rotation until the main beam reaches an end of a next round of the spiral track so as to blank the next round.

Claim 4 (currently amended) The optical recording apparatus according to claim 1, wherein the control section controls the servo section and the recording section for performing a session of recording information by alternating the ~~filled~~ recorded rounds and the blanked rounds, and performing an additional session of recording information selectively into the blanked rounds of the spiral track while skipping the ~~filled~~ rounds of the spiral track recorded in the previous session.

Claim 5 (currently amended) The optical recording apparatus according to claim 1, wherein the recording section modulates an intensity of the optical beam according to information ~~representative of~~ that represents an image for forming pits and lands along the spiral track to thereby draw the image on the optical disk.

Claim 6 (currently amended) An optical recording apparatus for recording information on an optical disk, comprising:

a rotating section that is provided for rotating the optical disk which is formed thereon with a guide groove to define a spiral track having a plurality of rounds;

a detecting section that is provided for detecting a rotation signal ~~representative of that~~ represents a rotation speed of the rotating section;

a regulating section that is provided for regulating the rotating section in response to the rotation signal;

an optical pickup that has a light source for generating an optical beam and a diffractive grating for diffracting the optical beam to form a main beam and a pair of sub beams opposite with each other relative to the main beam, ~~the optical pickup being operable for irradiating the main beam to the spiral track with accompanying the pair of the sub beams along opposite sides of the spiral track;~~

a servo section that operates the optical pickup to enable the main beam to trace the spiral track with the accompanying pair of the sub beams along opposite sides of the spiral track based on a tracking error signal derived from return lights of the sub beams reflected back from the optical disk;

a recording section that is provided for receiving information, then generating a recording waveform according to the received information, increasing the power of main beam to widely form pits to the extent that the pits recorded on previous round overlaps partially with the sub beam positioned radially inner side so as to cause an undesirable track jumping and modulating an intensity of the main beam based on the recording waveform so as to record the information onto the spiral track;

a timing section that is provided, receptive of the rotation signal, ~~signal~~ for outputting a timing signal that indicates an end of a round ~~each cycle the optical disk is rotated such that the~~

~~timing signal indicates recording of the information into each round of the spiral track; and~~

a control section that is provided, responsive to the timing signal, ~~signal~~ for controlling either of the servo section or the recording section so as to alternate a ~~filled~~ recorded round recorded with the information and a ~~black~~ blank round not recorded with the information by jumping the main beam by one round each time the timing signal is outputted or by suppressing the power of the optical beam ~~at least~~ every one round after ~~another~~ recorded round.

Claim 7 (currently amended) An optical recording apparatus for recording information on an optical disk, comprising:

a rotating section that is provided for rotating the optical disk which is formed thereon with a guide groove to define a spiral track having a plurality of rounds;

a detecting section that is provided for detecting a rotation signal ~~representative of that~~ represents a rotation speed of the rotating section;

a regulating section that is provided for regulating the rotating section in response to the rotation signal;

an optical pickup that has a light source for generating an optical beam and a diffractive grating for diffracting the optical beam to form a main beam and a pair of sub beams opposite with each other relative to the main beam, ~~the optical pickup being operable for irradiating the main beam to the spiral track with accompanying the pair of the sub beams along opposite sides of the spiral track;~~

a servo section that operates the optical pickup to enable the main beam to trace the spiral track with the accompanying pair of the sub beam along opposite sides of the spiral track based on a tracking error signal derived from return lights of the sub beams reflected back from the optical disk;

a recording section that is provided for receiving a signal ~~representative of that~~ represents the information, then adjusting a recording waveform according to the received signal, increasing the power of main beam to widely form pits to the extent that the pits recorded on previous round overlaps with the sub beam positioned radially inner side so as to cause an undesirable track jumping, and modulating an intensity of the main beam based on the adjusted recording waveform so as to record the information;

a timing section that is provided, receptive of the rotation signal, ~~signal~~ for outputting a timing signal that indicates an end of a round ~~each cycle the optical disk is rotated such that the~~

~~timing signal indicates recording of the information into each round of the spiral track; and~~

a control section that is provided, responsive to the timing signal, ~~signal~~ for controlling either of the servo section or the recording section so as to alternate a ~~filled~~ recorded round recorded with the information and a blank ~~black~~ round not recorded with the information by jumping the main beam by one round each time the timing signal is outputted or by suppressing the power of the optical beam ~~at least~~ every one after ~~another~~ recorded round.

Claim 8 (currently amended) A method of recording information on an optical disk by section of an optical pickup having a light source generating an optical beam and a diffractive grating for diffracting the optical beam to form a main beam and a pair of sub beams opposite with each other relative to the main beam, the method comprising the steps of:

rotating the optical disk which is formed thereon with a guide groove to define a spiral track having a plurality of rounds;

operating the optical pickup for irradiating the main beam to the spiral track with the accompanying ~~the~~ pair of the sub beams along ~~apposite~~ opposite sides of the spiral track;

further operating the optical pickup to enable the main beam to trace the spiral track based on a tracking error signal derived from return lights of the sub beams reflected back from the optical disk;

modulating the main beam for recording of the information onto the spiral track while the optical ~~disk~~ disk is rotated and the power of main beam is increased to widely form pits to the extent that the pits recorded on previous round overlaps partially with the sub beam positioned radially inner side so as to cause an undesirable track jumping; and

controlling the recording of the information each cycle the optical disk is rotated such that the recording of the information is enabled to ~~fill~~ record one round of the spiral track and ~~disabled~~ enabled to blank another round of the spiral track so as to alternate the ~~filled~~ recorded rounds and the blanked rounds.